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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 10/787,267 | 02/25/2004 | Veronique A. Dartois | GC687-3D1 | 5404 |
| 7590 | 04/11/2006 | | EXAMINER | |
| Genencor International, Inc. 925 Page Mill Road Palo Alto, CA 94034-1013 | | | PATTERSON, CHARLES L JR | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1652 | |

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|---------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/787,267 | DARTOIS ET AL. |
| | Examiner | Art Unit |
| | Charles L. Patterson, Jr. | 1652 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 May 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 5-7,11-16,20-27,36-40 and 49-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 5,6,11-16,20-27,36-40,49,50,52-54 and 56 is/are rejected.
- 7) Claim(s) 7,51 and 55 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 February 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

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Claims 5, 11, 21 and 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 11 are apparently incorrect in the recitation of "2,5-diketo-gluconate", which should apparently be "2,5-diketo-D-gluconic acid", as on page 1, line 18 of the specification.

Claim 21 is incorrect in the recitation of "2,5-DKG activity", which should apparently be "2,5-DKG permease activity".

Claim 56 is indefinite and therefore confusing in the recitation of "stringent hybridization conditions". This recitation reads on any level of stringency whatsoever including highly stringency, medium stringency and very low stringency.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-6, 11-16, 20-27, 36-40, 49-50, 52-54 and 56 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The instant specification teaches one of ordinary skill in the art to obtain SEQ ID NO:12 encoded by SEQ ID NO:11. It does not teach one how to obtain a nucleic acid encoding a protein having 40% or 80% identity to SEQ ID NO: 12. It is well known that if even one nucleotide or amino acid is

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changed, the activity may be eliminated. There is no guidance given in the instant specification as to what specific amino acids and/or nucleotides to change to what in order to obtain a protein with the same activity. Therefore, applicants should limit their claims to what is taught in the specification. In order to allow for allelic variants the examiner will allow claims drawn to 95% identity.

Claim 56 reads on nucleic acid molecules that consist of nucleotides or that encode polypeptides from anything whatsoever having 20 consecutive nucleotides since the word "comprising" is used. The molecule could be from a completely unrelated gene as long as it met these characteristics. Therefore one of ordinary skill in the art would not know how to make and/or use the claimed invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 56 is rejected under 35 U.S.C. 102(e) as being anticipated by either of Hoch, et al. (A), Goldman, et al. (B) or Mahairas, et al. (U). Each of the instant reference teach 20 consecutive nucleotides of SEQ ID NO:11. The purported use of the nucleotide has no bearing on the claim. It is presumed that the nucleotide sequence will hybridize to a nucleotide

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having permease activity, absent very convincing proof to the contrary. In Hoch, et al., residues 3750-5249 of SEQ ID NO:19 has 100% identity to SEQ ID NO:11 residues 1-1317 of SEQ ID NO:5 have 87.8% identity to residues 70-1386 of SEQ ID NO:11 and residues 1467-1500 of SEQ ID NO:6 correspond to residues 1-34 of SEQ ID NO:11. SEQ ID NO:14 of Hoch, et al. has 100% identity to SEQ ID NO:12.

In Goldman, et al., residues 770-790 of SEQ ID NO: 7050 correspond to residues 233-253 of SEQ ID NO:11 and residues 1546-1566 of SEQ ID NO:627 correspond to residues 233-253 of SEQ ID NO:11.

As shown in the attachment to Mahairas, et al., residues 104-124 correspond to residues 74-94 of SEQ ID NO:11.

Claims 7, 51 and 55 are objected to as being dependent upon a rejected base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose telephone number is 571-272-0936. The examiner can normally be reached on Monday - Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available

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through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles L. Patterson, Jr.
Primary Examiner
Art Unit 1652

Patterson
March 30, 2006